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EXAMINER

SEVERSON, JEREMY R

| ART UNIT | PAPER NUMBER |
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3653

DATE MAILED: 04/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|---------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/718,617 | Applicant(s) ENGARTO ET AL. | |
| | Examiner Jeremy R. Severson | Art Unit 3653 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15-19 and 24-27 is/are allowed.
- 6) ☒ Claim(s) 1-14 and 20-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>11/24/03, 8/23/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because there is no label indicating that the first drawing is "Figure 1". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

1. Claim 20 is objected to because of the following informalities: on p. 44, line 11, "relatively" is misspelled. Appropriate correction is required.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-10 and 20-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. The term "relatively large" in claims 1, 6 and 20 is a relative term which renders the claim indefinite. The term "relatively large" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is unclear what range of thickness is considered "relatively large."

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-5 and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Large et al. (US 5,727,692) ("Large") in view of Tanimoto (US 6,521,854) ("Tanimoto").

6. Re claim 1, Large discloses a system for measuring the thickness dimension of an article being conveyed along a predetermined conveyor path, wherein the article has a predetermined substantially constant, relatively large thickness dimension and a predetermined length dimension, comprising: an article conveyor (Large, col. 2, lines 16-17) for conveying a plurality of articles along a predetermined conveyor path,

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wherein each one of the conveyed articles has a predetermined substantially constant, relatively large thickness dimension and a predetermined length dimension; a mounting bracket (Large, 1); a lever arm (Large, 5) movably mounted upon said rotary shaft of said rotary encoder and having a first end portion (Large, 4) thereof disposed in contact with said article conveyor so as to operatively engage each one of the articles being conveyed along said predetermined conveyor path by said article conveyor, whereupon said first end portion of said lever arm encountering an article, which is being conveyed along said predetermined conveyor path by said article conveyor and which has a predetermined substantially constant, relatively large thickness dimension and a predetermined length dimension, said lever arm will repetitively move away from and back toward said article conveyor, as the article is conveyed along said predetermined conveyor path by said article conveyor, between first positions (indicated by diamonds in fig. 4(a) of Large) which are indicative of first false positive thickness dimensions of the article being conveyed along said predetermined conveyor path by said article conveyor, and a second position (indicated by squares in fig. 4(a) of Large) which is indicative of a second true predetermined substantially constant, relatively large thickness dimension of the article being conveyed along said predetermined conveyor path by said article conveyor, as determined by the means for determining the thickness measured by the thickness sensor wherein said means for determining the thickness measured by the thickness sensor will emit correlated thickness dimension data as a function of the length of the article being conveyed along said predetermined conveyor path by said article conveyor (Large, fig. 4(a)); and means for determining the second

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true thickness dimension of the article being conveyed along said predetermined conveyor path by said article conveyor by effectively eliminating the first false positive thickness dimensions of the article being conveyed along said predetermined conveyor path by said article conveyor (Large, col. 3, line 59 - col. 4, line 2). Large lacks the use of a rotary encoder mounted upon said mounting bracket and comprising a rotary shaft as the means for determining the thickness measured by the thickness sensor.

Tanimoto teaches the use of a rotary encoder in order to detect the angle change when the roller is in contact with a mail piece (Tanimoto, col. 4, first full par.). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a rotary encoder mounted upon said mounting bracket and comprising a rotary shaft as the means for determining the thickness measured by the thickness sensor as taught by Tanimoto in the device of Large in order to detect the angle change when the roller is in contact with a mail piece.

7. Re claim 2, Large as modified by Tanimoto discloses the system as set forth in claim 1, wherein said means for determining the true thickness dimension of the article being conveyed along said predetermined conveyor path by said article conveyor, comprises: sensor means (Large, 4) for predetermining the length dimension of each article being conveyed along said predetermined conveyor path by said article conveyor; and central processing means (Large, 10), operatively connected to said rotary encoder, for determining the first and second thickness dimensions of each article being conveyed along said predetermined conveyor path by said article conveyor as a

function of the predetermined length dimension of each article being conveyed along said predetermined conveyor path by said article conveyor (Large, col. 3, par. 6).

8. Re claim 3, Large as modified by Tanimoto discloses the system as set forth in claim 2, wherein: said central processing unit comprises program means for detecting repetitive substantially similar second thickness dimension values and which can ignore variable first thickness dimension values (Large, col. 4, first full par.).

9. Re claim 4, Large as modified by Tanimoto discloses the system as set forth in claim 3, wherein: said program means of said central processing unit (CPU) can determine a locus, from said repetitive substantially similar second thickness dimension values, which is indicative of the second true thickness dimension of the article being conveyed along said predetermined conveyor path by said article conveyor (Large, col. 3, last three par.).

10. Re claim 5, Large as modified by Tanimoto discloses the system as set forth in claim 1, wherein: said first positions, to which said lever arm is moved so as to indicate the first false positive thickness dimensions of the article being conveyed along said predetermined conveyor path by said article conveyor, are located more remote from said article conveyor than said second position to which said lever arm is moved so as to indicate the second true predetermined substantially constant, relatively large thickness dimension of the article being conveyed along said predetermined conveyor path by said article conveyor (see, e.g., Large, fig. 4(a), at a distance of 25 cm the first position indicated by the diamond is located more remote from the conveyor than the second true dimension indicated by the square).

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11. Re claim 11, Large discloses a system for measuring the thickness dimension of an article being conveyed along a predetermined conveyor path, wherein the article has a variable thickness dimension along its longitudinal extent defining a predetermined length dimension, comprising: an article conveyor for conveying a plurality of articles along a predetermined conveyor path (Large, col. 2, lines 16-17), wherein each one of the conveyed articles has a variable thickness dimension along its longitudinal extent defining a predetermined length dimension (Large, col. 3, fifth par.); a mounting bracket (Large, 1); a lever arm (Large, 5) movably mounted upon said rotary shaft of said rotary encoder and having a first end portion (Large, 4) thereof disposed in contact with said article conveyor so as to operatively engage each one of the articles being conveyed along said predetermined conveyor path by said article conveyor, whereupon said first end portion of said lever arm encountering an article, which is being conveyed along said predetermined conveyor path by said article conveyor and which has a variable thickness dimension along its longitudinal extent defining a predetermined length dimension, said lever arm will move in a variable manner with respect to said article conveyor, as the article is conveyed along said predetermined conveyor path by said article conveyor, between a plurality of different positions which are indicative of a plurality of different thickness dimensions of the article being conveyed along said predetermined conveyor path by said article conveyor, as determined by corresponding rotations of said rotary shaft of said rotary encoder wherein the means for determining the thickness measured by the thickness sensor will emit correlated thickness dimension data as a function of the length of the article being conveyed along said

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predetermined conveyor path by said article conveyor (see Large, fig. 4(a)); and means for determining an average thickness dimension of the article being conveyed along said predetermined conveyor path by said article conveyor from said plurality of different thickness dimensions as generated from said thickness dimension data by said means for determining the thickness measured by the thickness sensor (Large, col. 3, line 59 - col. 4, line 2). Large lacks the use of a rotary encoder mounted upon said mounting bracket and comprising a rotary shaft as the means for determining the thickness measured by the thickness sensor. Tanimoto teaches the use of a rotary encoder in order to detect the angle change when the roller is in contact with a mail piece (Tanimoto, col. 4, first full par.) Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add of a rotary encoder mounted upon said mounting bracket and comprising a rotary shaft as the means for determining the thickness measured by the thickness sensor as taught by Tanimoto to the device of Large in order to detect the angle change when the roller is in contact with a mail piece.

12. Re claim 12, Large as modified by Tanimoto discloses the system as set forth in claim 11, wherein said means for determining the average thickness dimension of the article being conveyed along said predetermined conveyor path by said article conveyor, comprises: sensor means for predetermining the length dimension of each article being conveyed along said predetermined conveyor path by said article conveyor (Large, col. 1, lines 62-64); and central processing means (Large, 10), operatively connected to said rotary encoder, for determining the plurality of thickness dimensions of each article being conveyed along said predetermined conveyor path by said article

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conveyor as a function of the predetermined length dimension of each article being conveyed along said predetermined conveyor path by said article conveyor (Large, col. 3, par. 6).

13. Re claim 13, Large as modified by Tanimoto discloses the system as set forth in claim 12, wherein: said central processing unit (CPU) comprises program means for detecting said plurality of different thickness dimension values and for averaging said plurality of different thickness dimension values (Large, col. 4, final par.).

14. Re claim 14, Large as modified by Tanimoto discloses the system as set forth in claim 13, wherein: said program means of said central processing unit (CPU) can determine a locus, from said plurality of different thickness dimension values, which is indicative of the average thickness dimension of the article being conveyed along said predetermined conveyor path by said article conveyor (Large, col. 4, final par.).

15. Claims 6-10 and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Large in view of Tanimoto and Gottlieb et al. (US 6,283,304) ("Gottlieb").

16. Re claim 6, Large discloses a conveyor system for depositing a predetermined number of articles, having a predetermined cumulative thickness dimension, into a storage bin having a predetermined storage capacity, comprising: an article conveyor for conveying a plurality of articles along a predetermined conveyor path, wherein each one of the conveyed articles has a predetermined substantially constant, relatively large thickness dimension and a predetermined length dimension; a mounting bracket (Large, 1); a lever arm (Large, 5) movably mounted upon said rotary shaft of said rotary

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encoder and having a first end portion (Large, 4) thereof disposed in contact with said article conveyor so as to operatively engage each one of the articles being conveyed along said predetermined conveyor path by said article conveyor, whereupon said first end portion of said lever arm encountering an article, which is being conveyed along said predetermined conveyor path by said article conveyor and which has a predetermined substantially constant, relatively large thickness dimension and a predetermined length dimension, said lever arm will repetitively move away from and back toward said article conveyor, as the article is conveyed along said predetermined conveyor path by said article conveyor, between first positions (indicated by diamonds in fig. 4(a) of Large) which are indicative of first false positive thickness dimensions of the article being conveyed along said predetermined conveyor path by said article conveyor, and a second position (indicated by squares in fig. 4(a) of Large) which is indicative of a second true predetermined substantially constant, relatively large thickness dimension of the article being conveyed along said predetermined conveyor path by said article conveyor, as determined by the means for determining the thickness measured by the thickness sensor wherein said means for determining the thickness measured by the thickness sensor will emit correlated thickness dimension data as a function of the length of the article being conveyed along said predetermined conveyor path by said article conveyor (Large, fig. 4(a)); and means for determining the second true thickness dimension of the article being conveyed along said predetermined conveyor path by said article conveyor by effectively eliminating the first false positive thickness dimensions of the article being conveyed along said predetermined conveyor

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path by said article conveyor (Large, col. 3, line 59 - col. 4, line 2). Large lacks: (1) a rotary encoder mounted upon said mounting bracket and comprising a rotary shaft; (2) a storage bin having a predetermined storage capacity for accommodating therein a predetermined number of articles having a predetermined cumulative thickness dimension such that the predetermined number of articles can be stored within said storage bin; and (3) means operatively connected to said article conveyor for correlating said second true thickness dimension data of each article being conveyed along said predetermined conveyor path by said article conveyor with said predetermined storage capacity of said storage bin such that when the cumulative second true thickness dimension of a plurality of articles being conveyed along said predetermined conveyor path by said article conveyor, as indicated by said thickness dimension data emitted by said rotary encoder, comprises a predetermined value with respect to said storage capacity of said storage bin, operation of said article conveyor will be terminated so as not to deposit any additional articles into said storage bin. Re (1), Tanimoto teaches the use of a rotary encoder in order to detect the angle change when the roller is in contact with a mail piece (Tanimoto, col. 4, first full par.). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a rotary encoder mounted upon said mounting bracket and comprising a rotary shaft as the means for determining the thickness measured by the thickness sensor as taught by Tanimoto in the device of Large in order to detect the angle change when the roller is in contact with a mail piece. Re (2), Gottlieb teaches the use of a storage bin (Gottlieb, 20) having a predetermined storage capacity for accommodating therein a predetermined

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number of articles having a predetermined cumulative thickness dimension such that the predetermined number of articles can be stored within said storage bin in order to enable a determination as to whether the bin is full (Gottlieb, col. 4, lines 23-25).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add a storage bin having a predetermined storage capacity for accommodating therein a predetermined number of articles having a predetermined cumulative thickness dimension such that the predetermined number of articles can be stored within said storage bin as taught by Gottlieb to the device of Tanimoto in order to enable a determination as to whether the bin is full. Re (3), Gottlieb teaches means operatively connected to said article conveyor for correlating said second true thickness dimension data of each article being conveyed along said predetermined conveyor path by said article conveyor with said predetermined storage capacity of said storage bin such that when the cumulative second true thickness dimension of a plurality of articles being conveyed along said predetermined conveyor path by said article conveyor, as indicated by said thickness dimension data, comprises a predetermined value with respect to said storage capacity of said storage bin, operation of said article conveyor will be terminated so as not to deposit any additional articles into said storage bin (Gottlieb, col. 4, first full par.), so that less bin sensors are required (Gottlieb, col. 2, lines 66-67). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add means operatively connected to said article conveyor for correlating said second true thickness dimension data of each article being conveyed along said predetermined conveyor path by said article conveyor with said

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predetermined storage capacity of said storage bin such that when the cumulative second true thickness dimension of a plurality of articles being conveyed along said predetermined conveyor path by said article conveyor, as indicated by said thickness dimension data, comprises a predetermined value with respect to said storage capacity of said storage bin, operation of said article conveyor will be terminated so as not to deposit any additional articles into said storage bin as taught by Gottlieb to the device of Large so that less bin sensors are required.

17. Re claim 7, Large as modified by Tanimoto and Gottlieb discloses the system as set forth in claim 6, wherein: said means operatively connected to said article conveyor comprises a central processing unit (Gottlieb, col. 3, lines 50-53).

18. Re claim 8, Large as modified by Tanimoto and Gottlieb discloses the system as set forth in claim 7, further comprising: reader means (Tanimoto, col. 12, lines 6-18) for reading indicia upon each one of the articles being conveyed along said predetermined conveyor path by said article conveyor and for transmitting said read indicia to said central processing unit (CPU) such that said central processing unit (CPU) is enabled to track each individual article being conveyed along said predetermined conveyor path by said article conveyor (Gottlieb, col. 3, lines 50-53).

19. Re claim 9, Large as modified by Tanimoto and Gottlieb discloses the system as set forth in claim 8, wherein: said central processing unit (CPU) has stored therein said predetermined storage capacity of said storage bin so as to be able to correlate said storage capacity of said storage bin with the cumulative thickness dimension data of the

plurality of articles being conveyed along said predetermined conveyor path by said article conveyor (Gottlieb, col. 4, lines 23-25).

20. Re claim 10, Large as modified by Tanimoto and Gottlieb discloses the system as set forth in claim 8, wherein: said reader means comprises a reader selected from the group comprising a bar code reader and an optical character recognition reader (Tanimoto, col. 12, lines 6-18).

21. Re claim 20, Large discloses a method for depositing a predetermined number of articles, having a predetermined cumulative thickness dimension, into a storage bin having a predetermined storage capacity, comprising: positioning means for determining the thickness measured by the thickness sensor, having a rotary shaft, adjacent to said article conveyor (Large, col. 3, first four par.); movably mounting a lever arm upon said rotary shaft of said means for determining the thickness measured by the thickness sensor (Large, col. 3, fourth par.) wherein a first end portion of said lever arm is disposed in contact with said article conveyor so as to operatively engage each one of the articles being conveyed along said predetermined conveyor path by said article conveyor (Large, col. 3, third par.), whereupon said first end portion of said lever arm encountering an article, which is being conveyed along said predetermined conveyor path by said article conveyor and which has a predetermined substantially constant, relatively large thickness dimension and a predetermined length dimension, said lever arm will repetitively move away from and back toward said article conveyor, as the article is conveyed along said predetermined conveyor path by said article conveyor, between first positions which are indicative of first false positive thickness dimensions of

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the article being conveyed along said predetermined conveyor path by said article conveyor, and a second position which is indicative of a second true predetermined substantially constant, relatively large thickness dimension of the article being conveyed along said predetermined conveyor path by said article conveyor, as determined by corresponding rotations of said means for determining the thickness measured by the thickness sensor wherein said means for determining the thickness measured by the thickness sensor will emit correlated thickness dimension data as a function of the length of the article being conveyed along said predetermined conveyor path by said article conveyor (Large, col. 3, line 46 - col. 4, line 20); and providing means for determining the second true thickness dimension of each article being conveyed along said predetermined conveyor path by said article conveyor by effectively eliminating the first false positive thickness dimensions of each article being conveyed along said predetermined conveyor path by said article conveyor (Large, col. 3, last par.). Large lacks the disclosure of (1) using a rotary encoder as means for determining the thickness measured by the thickness sensor; and (2) providing a storage bin having a predetermined storage capacity for accommodating therein a predetermined number of articles having a predetermined cumulative thickness dimension such that the predetermined number of articles can be stored within said storage bin; providing an article conveyor for conveying a plurality of articles along a predetermined conveyor path toward said storage bin, wherein each one of the conveyed articles has a predetermined, substantially constant, relatively large thickness dimension and a predetermined length dimension; providing means for correlating said second true

thickness dimension data of each article being conveyed along said predetermined conveyor path by said article conveyor with said predetermined storage capacity of said storage bin; and controlling the operation of said article conveyor in such a manner that when the cumulative thickness dimension of a plurality of articles being conveyed along said predetermined conveyor path of said article conveyor, as indicated by said thickness dimension data emitted by said means for determining the thickness measured by the thickness sensor and comprising said second true thickness dimensions, comprises a predetermined value with respect to said storage capacity of said storage bin, operation of said article conveyor will be terminated so as not to deposit any additional articles into said storage bin. Re (1), Tanimoto teaches the use of a rotary encoder in order to detect the angle change when the roller is in contact with a mail piece (Tanimoto, col. 4, first full par.). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a rotary encoder mounted upon said mounting bracket and comprising a rotary shaft as the means for determining the thickness measured by the thickness sensor as taught by Tanimoto in the device of Large in order to detect the angle change when the roller is in contact with a mail piece. Re (2), Gottlieb teaches a method of providing a storage bin having a predetermined storage capacity for accommodating therein a predetermined number of articles having a predetermined cumulative thickness dimension such that the predetermined number of articles can be stored within said storage bin; providing an article conveyor for conveying a plurality of articles along a predetermined conveyor path toward said storage bin, wherein each one of the conveyed articles has a

predetermined, substantially constant, relatively large thickness dimension and a predetermined length dimension (Gottlieb, col. 4, lines 23-25); providing means for correlating said second true thickness dimension data of each article being conveyed along said predetermined conveyor path by said article conveyor with said predetermined storage capacity of said storage bin; and controlling the operation of said article conveyor in such a manner that when the cumulative thickness dimension of a plurality of articles being conveyed along said predetermined conveyor path of said article conveyor, as indicated by said thickness dimension data emitted by said means for determining the thickness measured by the thickness sensor and comprising said second true thickness dimensions, comprises a predetermined value with respect to said storage capacity of said storage bin, operation of said article conveyor will be terminated so as not to deposit any additional articles into said storage bin (Gottlieb, col. 4, first full par.), so that less bin sensors are required (Gottlieb, col. 2, lines 66-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add a method of providing a storage bin having a predetermined storage capacity for accommodating therein a predetermined number of articles having a predetermined cumulative thickness dimension such that the predetermined number of articles can be stored within said storage bin; providing an article conveyor for conveying a plurality of articles along a predetermined conveyor path toward said storage bin, wherein each one of the conveyed articles has a predetermined, substantially constant, relatively large thickness dimension and a predetermined length dimension; providing means for correlating said second true thickness dimension data

of each article being conveyed along said predetermined conveyor path by said article conveyor with said predetermined storage capacity of said storage bin; and controlling the operation of said article conveyor in such a manner that when the cumulative thickness dimension of a plurality of articles being conveyed along said predetermined conveyor path of said article conveyor, as indicated by said thickness dimension data emitted by said means for determining the thickness measured by the thickness sensor and comprising said second true thickness dimensions, comprises a predetermined value with respect to said storage capacity of said storage bin, operation of said article conveyor will be terminated so as not to deposit any additional articles into said storage bin as taught by Gottlieb to the method disclosed in Large so that less bin sensors are required.

22. Re claim 21, Large as modified by Tanimoto and Gottlieb discloses the method as set forth in claim 20, wherein: said steps of determining the second true thickness dimension of each article being conveyed along said predetermined conveyor path by said article conveyor, correlating said second true thickness dimension data with said storage capacity of said storage bin, and controlling the operation of said article conveyor, are performed by a central processing unit (CPU) (Gottlieb, col. 3, lines 50-61).

23. Re claim 22, Large as modified by Tanimoto and Gottlieb discloses the method as set forth in claim 21, further comprising the step of: providing reader means for reading indicia upon each one of the articles being conveyed along said predetermined conveyor path by said article conveyor and for transmitting said read indicia to said

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central processing unit (CPU) such that said central processing unit (CPU) is enabled to track each individual article being conveyed along said predetermined conveyor path by said article conveyor (Tanimoto, col. 12, second and third par.).

24. Re claim 23, Large as modified by Tanimoto and Gottlieb discloses the method as set forth in claim 22, wherein: said step of correlating said storage capacity of said storage bin with the cumulative thickness dimension data of the plurality of articles being conveyed along said predetermined conveyor path by said article conveyor comprises the step of storing said predetermined storage capacity of said storage bin within said central processing unit (CPU) (Gottlieb, col. 4, first full par.).

Allowable Subject Matter

25. Claims 15-19 and 24-27 are allowed.

26. The following is a statement of reasons for the indication of allowable subject matter: the nearest prior art (e.g. Large, Tanimoto, Gottlieb) dealing with articles thicker than a sheet of paper does not include means operatively connected to said article conveyor for correlating said average thickness dimension data of each article being conveyed along said predetermined conveyor path by said article conveyor with said predetermined storage capacity of said storage bin such that when the cumulative average thickness dimension of the plurality of articles being conveyed along said predetermined conveyor path by said article conveyor, as indicated by said thickness dimension data emitted by said rotary encoder, comprises a predetermined value with respect to said storage capacity of said storage bin, operation of said article conveyor will be terminated so as not to deposit any additional articles into said storage bin.

Conclusion


Any references not explicitly discussed above but made of record are considered relevant to the prosecution of the instant application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy R. Severson whose telephone number is (571) 272-2209. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis, can be reached at (571) 272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JRS

 4/17/06
DEAN J. KRAMER
PRIMARY EXAMINER